

## Brief Resume

### **Dr. Md. Abul Kalam**

Associate Professor & Head

Department of Electrical Engineering

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### **1. Academic Qualifications:**

<b>S.No</b>	<b>Degree (UG, PG, Ph.D)</b>	<b>Specialization</b>	<b>University</b>	<b>Year</b>
1	B.E.	Electrical Engineering	Jamia Millia Islamia, New Delhi	1999
2	M.Tech.	Digital Communication	U. P. Technical University, Lucknow	2007
3	Ph.D.	Electrical Engineering (Power System)	Jamia Millia Islamia, New Delhi	2014

### **2. Teaching Experience: 23 Yrs**

<b>SL. No.</b>	<b>Position held</b>	<b>Name of the Institute/Organization</b>	<b>From</b>	<b>To</b>
1	Lecturer	JSS Academy of Tech. Edu. Noida, UP	Jun. 1999	May 2005
2	Senior Lecturer	-do-	Jun. 2005	Dec.2007
3	Assistant Professor	-do-	Jan.2008	Mar. 2015
4	Associate Professor	-do-	Apr.2015	13 <sup>th</sup> Mar.2019
5	Associate Professor	Dept. of Electrical Engg. BIT Sindri, Dhanbad	14th Mar.2019	Till date

### **3. Subjects Taught:**

**UG Level:** Basic Electrical Engineering, Power System Analysis, Power System-1, Network theory, Power System, Switchgear and Protection, Electrical Machine, Control System, Power station Practice, Basic System Analysis.

**PG Level:** Power System Analysis, Digital Protection of Power System, Advanced power system Analysis.

### **4. Research Guidance:**

- Guiding 2 Ph.D scholars.
- One Ph.D. Scholar Degree awarded.

## 5. (a) Responsibilities held at BIT Sindri:

- Head of the Electrical Engineering Department, BIT Sindri
- Electrical Substation In-charge of the BIT Sindri Campus
- Nodal officer Procurement TEQIP-III , BIT Sindri
- Nodal Officer Academic, BIT Sindri
- Hostel Superintendent, BIT Sindri
- Departmental NBA Coordinator, EED BIT Sindri
- Chairman Industry Institute Interaction Cell (IIIC), BIT Sindri.

## (b) Responsibilities held in the Pervious Institute:

- In-charge HOD, EED, JSSATE Noida
- Power system module coordinator, EED JSSATE Noida
- Departmental advisory Committee member, EED JSSATE Noida
- Technical committee member, EED JSSATE Noida
- Deputy Center superintendent of End Sem.Exam. JSSATE Noida
- Worked as an Assistant Centre superintendent End Sem. Exam, JSSATE Noida
- Departmental NBA coordinator, EED JSSATE Noida
- Nodal officer End Sem. Exam. JSSATE Noida
- Centre controller of UPSEE-2014 Entrance Test,
- Head Examiner

## 6. Patents

- [1].Title of the Invention: “AUTONOMOUS SWITCHING & CONTROLLING OF DOMESTIC HOME APPLIANCES IN A SINGLE SWICTCH BOARD WITHIN REGION OF 500 METER”, ThePatent office Journal No. 35/2020, dated: 28/08/2020.
- [2].Title of the Invention: “INTELLIGENT MONITORING AND CONTROLLING OF CHARGING AND DISCHARGING OF ELECTRIC VEHICLES BATTERIES BY SOLAR PV ARRAY”, ThePatent office Journal No. 09/2021, dated: 26/02/2021.
- [3].Title of the invention: “OPTIMAL CONTROL OF ELECTROMAGNETIC WAVES THROUGH ARTIFICIAL INTELLIGENT FOR ENHANCING THE POWER TRANSMISSION IN HIGH VOLTAGE TRANSMISSION LINE”, The Patent Office Journal No. 48/2021, dated: 26/11/2021.
- [4].Title of the invention: “AN IMPLICIT APPROACH FOR POWER QUALITY ASSESSMENT AND CONTOLLING OF SOLAR PHOTOVOLTAIC INTEGRATED CONVERTER SYSTEM”, The Patent office Journal No. 12/2022, dated 25/03/2022.

## 7. Paper Published in National/International Journals and Conferences:

- [1].Abhinav Saxena, Prashant, Nirmal Kumar Agarwal, **Md. Abul Kalam**, Nitin Kumar Pal, “Optimal Converging distributed load allocation of three

- generating units using Genetic Algorithm (GAs)”, Baltica Journal, Vol.33, no 12, pp.2-11, Dec 2020. ISSN: 0067-3064.
- [2]. Gyanesh Singh, A.Q.Ansari, **Md. Abul Kalam**, “Comparative Analysis of Fault Diagnosis in Transmission line using soft-computing Techniques”, International Journal of Advances in Engineering & Technology, p.p. 94-106, Vol. 13, issue-3, ISSN : 2231-1963, Jun. 2020.
- [3]. Gyanesh Singh, A.Q.Ansari, **Md. Abul Kalam**, “Analysis of Real Time Fault Data of Multi Terminal Transmission System using Python Learning Tools”, International Journal of Recent Technology and Engineering, p.p.517-523, Vol-8, Issue-I, May 2019, ISSN:2277-3878.
- [4]. Sanjay Kumar, Arvind Kumar Singh, **Md. Abul Kalam**, “Intelligent Electronic Device Functionality and Interfacing: An Experimental Examination of Smart Grid”, International Journal of Recent Technology and Engineering, p.p. 3922-3926, Vol-8, Issue- 2S11, Sept. 2019. ISSN: 2277-3878.
- [5]. Gyanesh Singh, A.Q.Ansari, **Md. Abul Kalam**, “Regression and classifier of real-time fault data using non-linear autoregressive exogenous model (NARX analysis) and comparing with Python tool”, Taru Journal of Computer Dynamics & Technological Advances, pp. 113–127, Nov. 2019.
- [6]. Gyanesh Singh, A.Q. Ansari, **Md. Abul Kalam**, Sudhakar Singh “Fault Diagnosis in Transmission System Using Artificial Neural Network and Fuzzy Logic System”, Think India Journal, Vol-22, pp.4484-4493, Issue-16-Aug.19
- [7]. Sanjay Kumar, Prof. Arvind Kumar Singh, **Md. Abul Kalam**, Dr. M. Deben Singh, “An ANN based Fault Location, Isolation, Classification, and Service Restoration Scheme using GOOSE Protocol”, Design Engineer Journal, Issue: 9, pp.: 1049-1064, Nov.2021. ISSN: 0011-9342.
- [8]. **Md. Abul Kalam**, Majid Jamil, “Wavelet-fuzzy based protection scheme of EHV-AC transmission system and efficacy of discrete Fourier transform Journal of Electrical Systems and Information Technology”, Journal of Electrical Systems and Information Technology5 (2018) 371–387.
- [9]. Majid Jamil, **Md. Abul Kalam**, A. Q. Ansari and M. Rizwan, “Generalized Neural Network and Wavelet Transform based Approach for Fault Location Estimation of a Transmission Line”, Applied Soft Computing (Elsevier), UK, Vol. 19, pp. 322-332, 2014.(SCI) ISSN: 1568-4946.
- [10]. Majid Jamil, **Md. Abul Kalam**, A. Q. Ansari and M. Rizwan, “Wavelet-FFNN based Fault Location Estimation of a Transmission Line”, Electrical Engineering Research (EER), an International Refereed Journal, USA, Vol. 1, No. 3, pp. 77-82, 2013. ISSN: 2327-7254, 2327-7564.
- [11]. Published in Third IEEE International Conference on Electrical, Computer and Communication Technologies (IEEE ICECCT 2019), “Fault

diagnosis in transmission system using Artificial Neural Network and Fuzzy Logic System”, held at SVS College of Engineering Coimbatore, Tamil Nadu, India, during 20-22 Feb.2019.

- [12]. Published in First International Conference on Advances in Electrical and Computer Technologies (ICAECT-2019), “Comparative analysis of real time fault data of multi-terminal transmission system using python learning tools (PLT) and artificial neural network (ANN)”, Coimbatore, Tamil Nadu, India, during 26-27 April.2019.
- [13]. Published in IEEE International Conference on Communication information and Computing Technology (ICCICT), “Accuracy determination and fault identification of multi-terminal transmission line using soft computing techniques”, 25th -27th, Jun.21.
- [14]. Published in IEEE 2021 fourth international conference on Electrical, Computer and Communication Technologies (ICECCT), “Fault prediction in transmission line using GOOSE protocol and Artificial Neural Network”, Erode, India, 15-17 Sep.2021.
- [15]. Published in IEEE 2021 2nd Global Conference for Advancement in Technology (GCAT), “Improved Fault Prediction using Hybrid Machine Learning Techniques”, 1st - Bangalore, India, 1<sup>st</sup>- 3<sup>rd</sup> Oct.2021.
- [16]. Published in International conference on advance in business and engineering for sustainability, “Protection of three phase induction for single phasing faults”, (ABES- March-2018), 27-28 Mar.2018.
- [17]. Published in International conference on advance in business and engineering for sustainability, “Comparative Analysis of DC-DC converter for Application in Energy system based on Renewable Energy Resources”, (ABES- March-2018), 27<sup>th</sup>-28<sup>th</sup> Mar.2018.
- [18]. Published in Proceedings of International IEEE Conference on Power Electronics Drives & Energy Systems (PEDES 2010 -Power India) “Wavelet based ANN Approach for fault location on a transmission line”, organized by IIT Delhi, India during 21-23, December, 2010.
- [19]. Published in *Proceedings of National Conference on Recent Advances in Electrical and Electronics Engineering*, RAEEE-09, “Fault Classification of Three Phase Transmission Line Using Fuzzy Logic”, NIT Hamirpur, during 23-24, December, 2009.
- [20]. Published in *National Conference on Power Electronics & Intelligent Control* (NCPEIC2012), Intelligent Protection Scheme of Three Phase Transmission line”, MNIT Jaipur, during 1-2, November, 2012.

**8. Seminar/ Webinar/Symposium/Workshop/FDP/Short term/ One/Two Week Training Program/ Course/Certification Course/ attended/completed/participated/Organized:**

1. Participated in two days Review meeting and Training on “ Goods and consultancy Procurement as per the World Bank Guidelines” Conducted on 17-18 December 2019 at Lucknow, Uttar Pradesh organized by the State Project Implementation Unit-Uttar Pradesh, Lucknow under the aegis of National Project Implementation Unit (NPIU), organised by the State Project Implementation Unit-UP.
2. Participated in two days International Conference on “Digital Pedagogies” Organised by JIS Group Educational Initiatives, Kolkata held at AICTE, New Delhi, during 1-2 April 2019.
3. Participated in three days Professional Development Programme on “TEQIP III Professional Development Programme for Sr. Academic cum Administrative Executives” held at IIM Shillong, during 19-21 June 2019.
4. Participated in workshop on “Water Scenario of Dhanbad District: Emerging Challenges” organised by Geology and Civil Engg. Department, BIT Sindri on 22.07.2019.
5. Participated in one-week FDP on “Natural Language Processing” Jointly organised by Electronics & ICT Academies at BIT Sindri, Remote Center supported by Ministry of Electronics & Information Technology (MeitY), Govt. Of India, endorsed by AICTE/UGC/NBA.
6. Participated in two days Symposium on “International Symposium on 5 G & beyond for Rural Upliftment” Jointly organised by the ECE Engg. Deptt. BIT Sindri & IIT (ISM) Dhanbad, during 8th- 9th Feb.2020.
7. Completed the E-learning program on “Power System Protection” under the Capability Development certification program by TATA STEEL on 21.04.2020.
8. Completed the E-learning program on “Machine Learning” under the Capability Development certification program by TATA STEEL on 24.04.2020.
9. Completed the E-learning program on “Power Systems Generation” under the Capability Development certification program by TATA STEEL on 26.04.2020.
10. Completed the E-learning program on “Power Systems Earthing” under the Capability Development certification program by TATA STEEL on 26.04.2020.
11. Successfully completed two-week online certification course on “Digital Transformation in Teaching Learning Process” conducted by IDP-ET, IIT Bombay, funded by the Ministry of HRD, Govt. Of India, during 6th April- 22nd April, 2020.
12. Completed the E-learning program on “Advance Microsoft Excel” under the Capability Development certification program by TATA STEEL on 01.05.2020.

13. Completed the E-learning program on “Induction Motor” under the Capability Development certification program by TATA STEEL on 03.05.2020.
14. Completed the E-learning program on “Power System Power Cables” under the Capability Development certification program by TATA STEEL on 04.05.2020.
15. Completed the E-learning program on “Transformer” under the Capability Development certification program by TATA STEEL on 16.05.2020.
16. Participated in FDP “One Day Faculty Development Programme on Free Open Source Tools for Education and Research” conducted via online mode jointly organised by BIT Sindri, Dhanbad and FOSSEE, IIT Bombay on 07 July 2020.
17. Completed successfully one week online Training Program on “Typhoon HIL for Real Time Power Systems & Protection Studies” conducted by Quarbz Info Systems, Kanpur & Typhoon HIL GmbH Switzerland, from 20th July, 2020-24th July 2020.
18. Completed successfully one-week online faculty development programme on, “Engineering Next Generation Technology For Humanity (ENGTH-2020)”, Organized by the Deptt. Of Electrical & Electronics Engg. Motihari college of Engineering Bihar, Sponsored by TEQIP-III, during 5th - 9th Aug.2020.
19. Participated in webinar on “Challenges in Integration of Large-Scale Renewables in Indian Power System” conducted by Department of Electrical Engg. BIT Sindri on 27th Aug.2020.
20. Participated in webinar on “Indigenous Instrumentation for Nano-Technology (IINT-2020)” organized by the Department of Metallurgical Engg. BIT Sindri, Dhanbad on 11th Sept.2020.
21. Successfully conducted, “Industry-Institute Meet, Jan 16, 2021, organized by the Industry-Institute Interaction cell (IIIC), BIT Sindri.
22. Successfully conducted Webinar on, “Generative Adversarial Network and Its Applications”, Organized by the Industry-Institute Interaction Cell (IIIC), BIT Sindri
23. Participated in the online Professional development Training Programme on “Mindful Leadership” under TEQIP Organized by Indian Institute of Management (IIM), Bodh Gaya from 1<sup>st</sup> to 5<sup>th</sup> Feb.2021.
24. Participated in the online Professional development Training Programme on “Research methods” under TEQIP Organized by Indian Institute of Management (IIM), Bodh Gaya from 18th to 23rd Jan.2021.
25. Received certificate of appreciation for five days INSPIRE-Science Camp from 26-30 Dec., 2016 at JSS Academy of Technical Education, Noida for Mentoring and as Member of Organizing Committee for “INSPIRE Science Camp-2016”, in Internship Component of Innovation in Science Pursuit for Inspired Research Programme Under Department of Science and Technology Ministry of Science and Technology, GOI

26. Participated in AICTE recognized one week short term course on “Effective Curriculum Implementation through ICT” conducted by Curriculum development Centre NITTTR Chandigarh, organized by JSSATE, Noida from 07-03-2016 to 11-03-2016.
27. Participated in AICTE recognized one week short term course on “Sustainable Environmental Management through ICT” conducted by NITTTR Chandigarh, organized by JSSATE, Noida from 14-03-2016 to 18-03-2016.
28. Participated in AICTE recognized one week short term course on “On operation Research through ICT” conducted by NITTTR Chandigarh, organized by JSSATE, Noida from 28-03-2016 to 01-04-2016.
29. Participated in AICTE recognized one week short term course on “Artificial Neural Network through ICT” conducted by NITTTR Chandigarh, organized by JSSATE, Noida from 25-04-2016 to 29-04-2016.
30. Participated in three days workshop on soft computing and Applications (SCA’14), jointly organized by the centre for Soft Computing Research (CSCR), Indian Statistical Institute Kolkata and JSSATEN, Noida during Sept.02-04, 2014.
31. Attended two days National seminar on “Recent Technological Development in the field of Electrical Engineering”, held from 23rd to 24th Aug.2013, Organized by Electrical Engineering Department JSSATE Noida in association with MTU and Schneider Electrical Infrastructure Ltd., Noida.
32. Completed successfully three days NBA workshop as a stakeholder, organized by JSS NBA Nodal centre held from 22nd to 24th Feb.2014.
33. Organized National seminar “RTDEE-2013” held from 23rd to 24th Aug. 2013, organized by Electrical Engineering Department, JSS Academy of Technical Education, Noida.
34. Organizer for NBA training workshop at JSS NBA Nodal centre during 22-24th Feb.2014.
35. Completed successfully two week Schneider Electric Substation Automation training programme in Jan.2014.
36. Completed successfully two weeks AICTE sponsored staff development programme on “Recent Advances in Electrical Power & Energy Systems”, organized by Department of Electrical Engineering, Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi, during 09 – 22, December 2011.
37. Participated in five days workshop on “Pattern Recognition & Soft Computing”, organized by Department of Electronics & Communication Engineering, Delhi Technological University, Delhi, during 05-09 July, 2010.
38. Completed successfully five days short term training course on Mipower software at Power Research and Development consultants Pvt .Ltd. Bangalore, from 9th to 13th March 2009.

39. Completed successfully three days training programme on developing personal effectiveness for improved performance at NIESBUD, Okhla, New Delhi, from 19th – 21st Jan, 2000.
40. Attended two days National seminar on “Recent Technological Development in the field of Electrical Engineering”, held from 23rd to 24th Aug.2013, Organized by Electrical Engineering Department JSSATE Noida in association with MTU and Schneider Electrical Infrastructure Ltd., Noida.
41. Completed successfully three days NBA workshop as a stakeholder, organized by JSS NBA Nodal centre held from 22nd to 24th Feb.2014.
42. Participated in two days National workshop on deployment and use of NPTEL (National Programme on Technology Enhanced Learning) organized by IIT Kanpur in collaboration with JSS Academy of Technical Education, Noida (U.P) from 30th -31th October, 2010.

#### **9. Paper Presentation/Lecture/Talk/Guest Lecture delivered /book reviewed**

- Delivered Expert talk in Workshop on “Fuzzy logic and its application for protection of power transmission system”, conducted by the department of Electrical Engineering BIT Sindri during 27<sup>th</sup> -31<sup>st</sup> Jan.2022.
- Lecture delivered at Indian school of Packaging, Northern Regional Centre, Delhi for the Post Graduate Diploma in Packaging on “Electrical Technology”.
- Delivered a talk on “Intelligent techniques (Fuzzy logic and its application based) to solve real life problems 20<sup>th</sup> Aug.2014 at JSSATE Noida.
- Book reviewed entitled” Linear Circuit Analysis”, written by Ramakalyan Published by Oxford Press.

#### **10. PERSONAL INFORMATION**

Date of Birth : 5th Sept, 1972  
Gender : Male  
Marital status : Married  
Languages known : English, Urdu & Hindi  
Nationality : Indian  
Life Member of ISTE : LM44006

(Dr. Md. Abul Kalam)